Fig.1

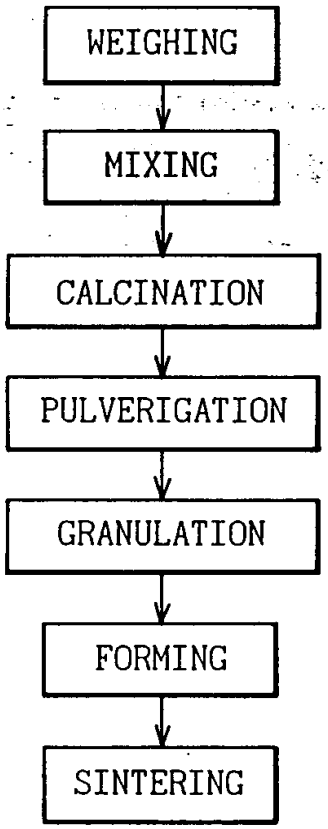

WEIGHING
MIXING
CALCINATION
PULVERIGATION
GRANULATION
FORMING
SINTERING

Fig.2

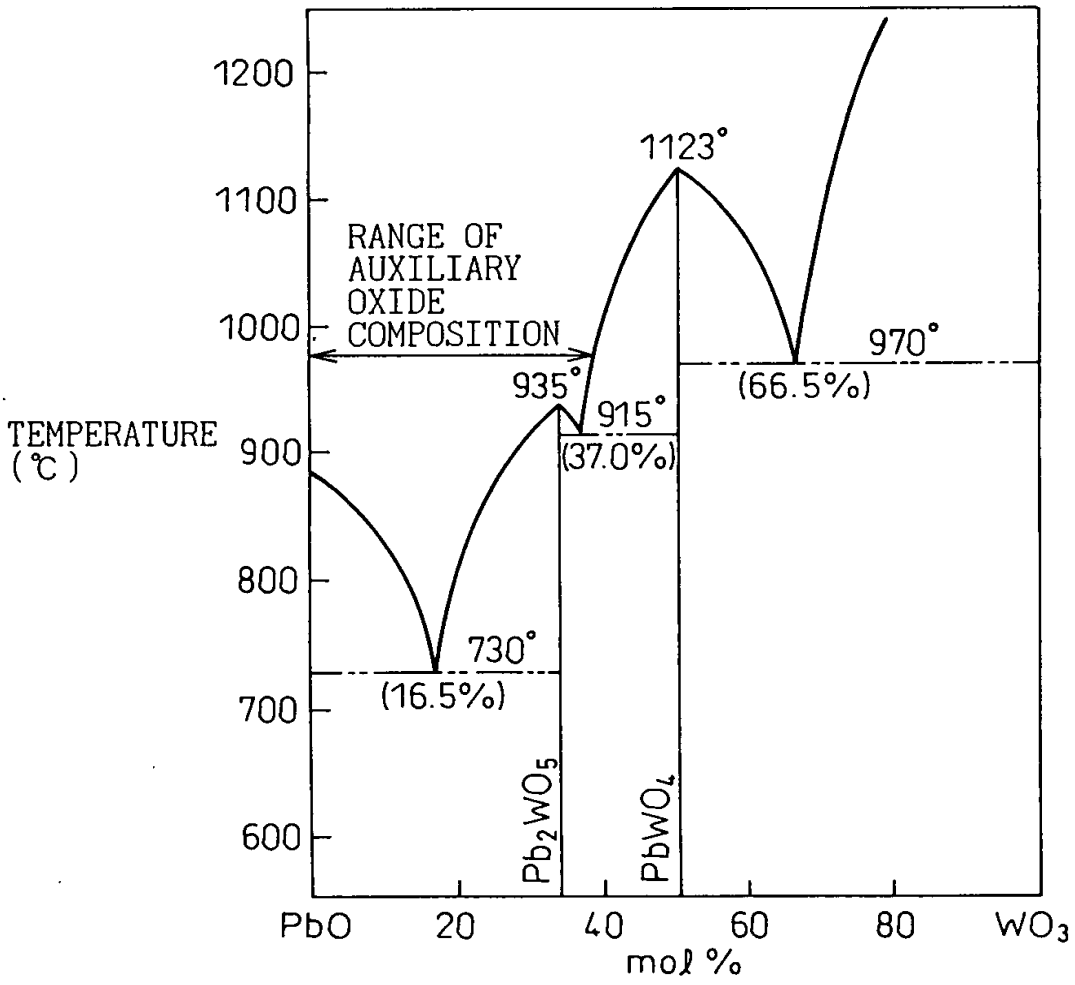

1200
1100
1000
900
800
700
600
TEMPERATURE (℃)
RANGE OF AUXILIARY OXIDE COMPOSITION
1123°
935°
915°
970°
730°
(66.5%)
(37.0%)
(16.5%)
Pb_2WO_5
$PbWO_4$
PbO
20
40
60
80
WO_3
mol %

Fig.3

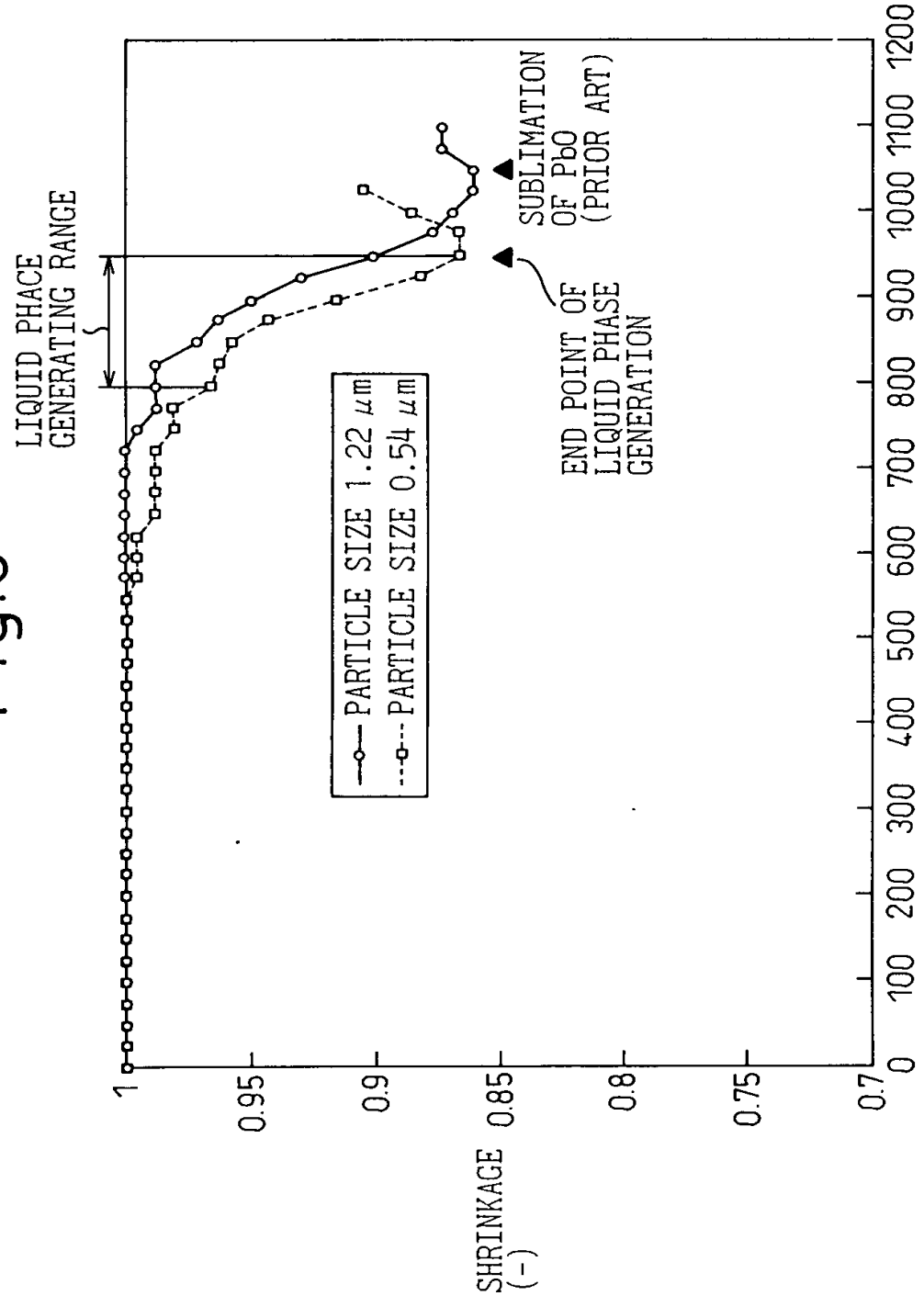

LIQUID PHACE
GENERATING RANGE
SUBLIMATION
OF PbO
(PRIOR ART)
END POINT OF
LIQUID PHASE
GENERATION
PARTICLE SIZE 1.22 μm
PARTICLE SIZE 0.54 μm
SHRINKAGE
(-)
TEMPERATURE (℃)
1
0.95
0.9
0.85
0.8
0.75
0.7
0
100
200
300
400
500
600
700
800
900
1000
1100
1200

Fig. 4(a)

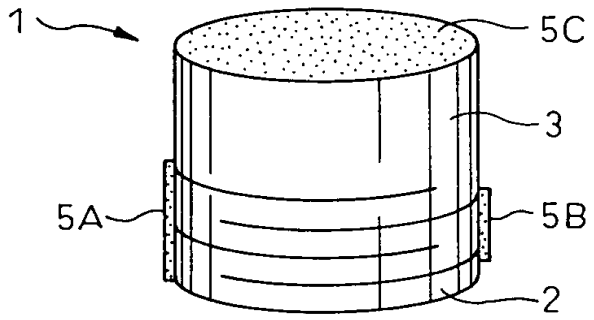


Fig. 4(b)

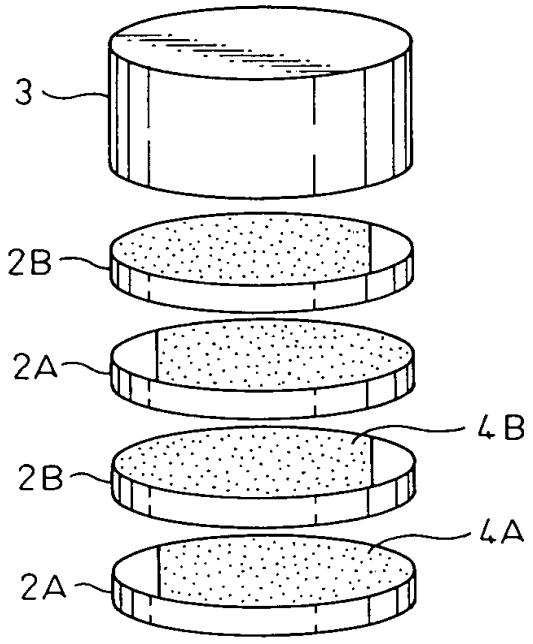


Fig.5(a)

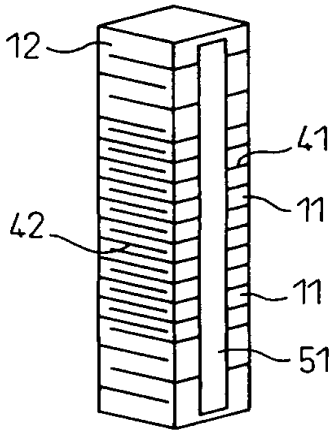


Fig.5(c)

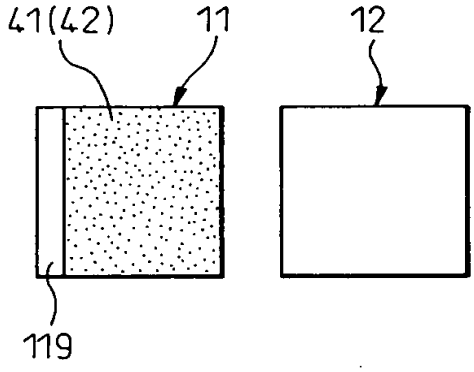


Fig.5(b)

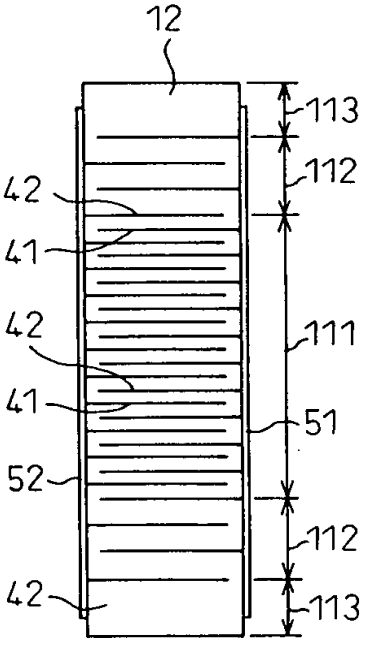


Fig.5(d)

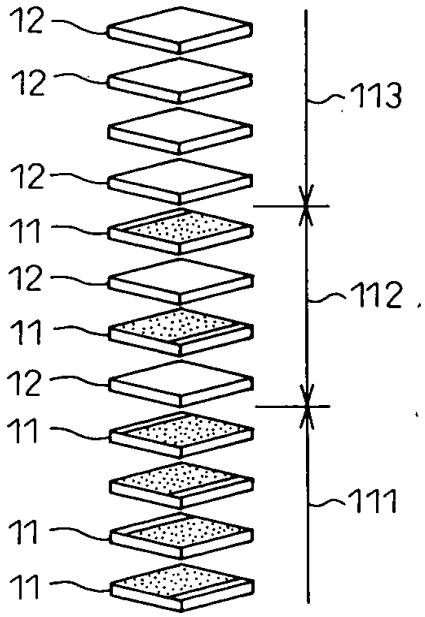


Fig.6(a)

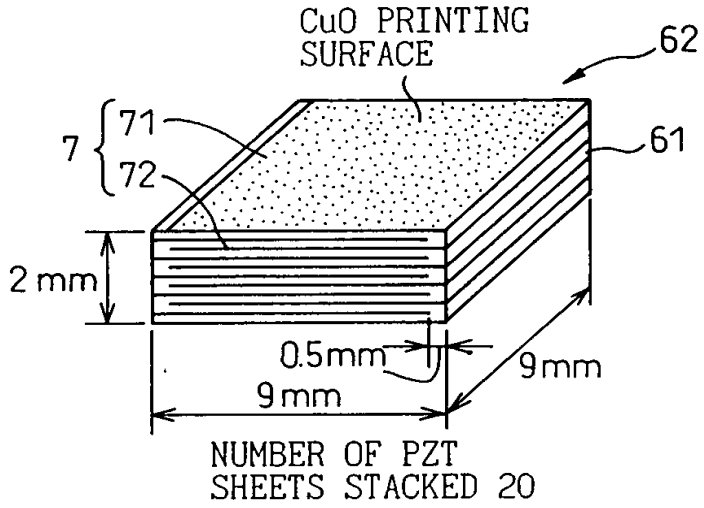

CuO PRINTING SURFACE
62
7
71
72
61
2 mm
0.5mm
9mm
9 mm
NUMBER OF PZT SHEETS STACKED 20

Fig.6(b)

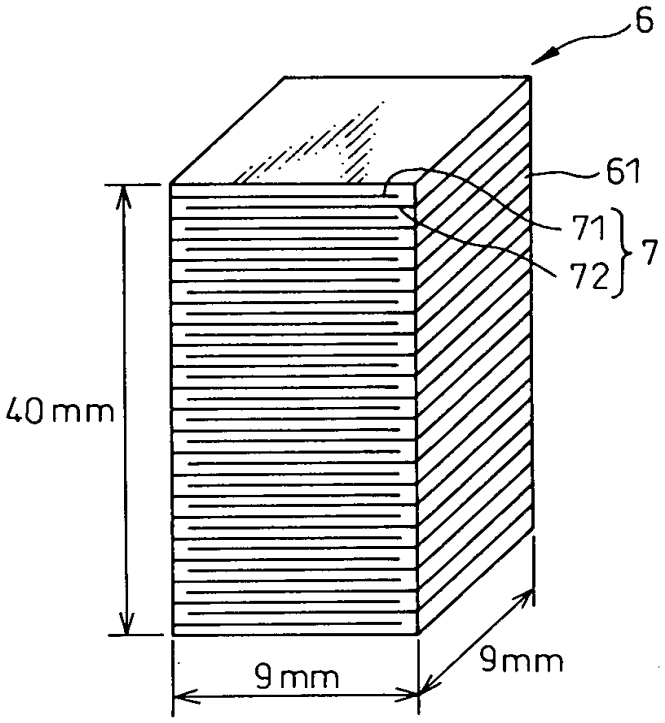

6
61
71
72
7
40 mm
9 mm
9mm

Fig.7(a)

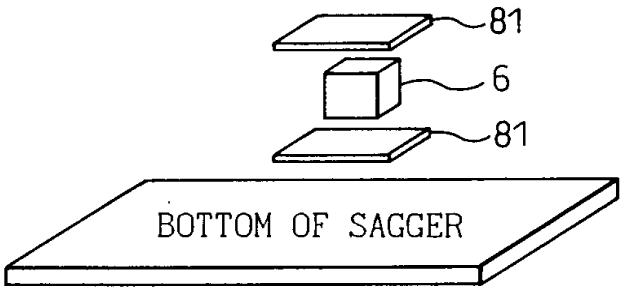

81
6
81
BOTTOM OF SAGGER

Fig.7(b)

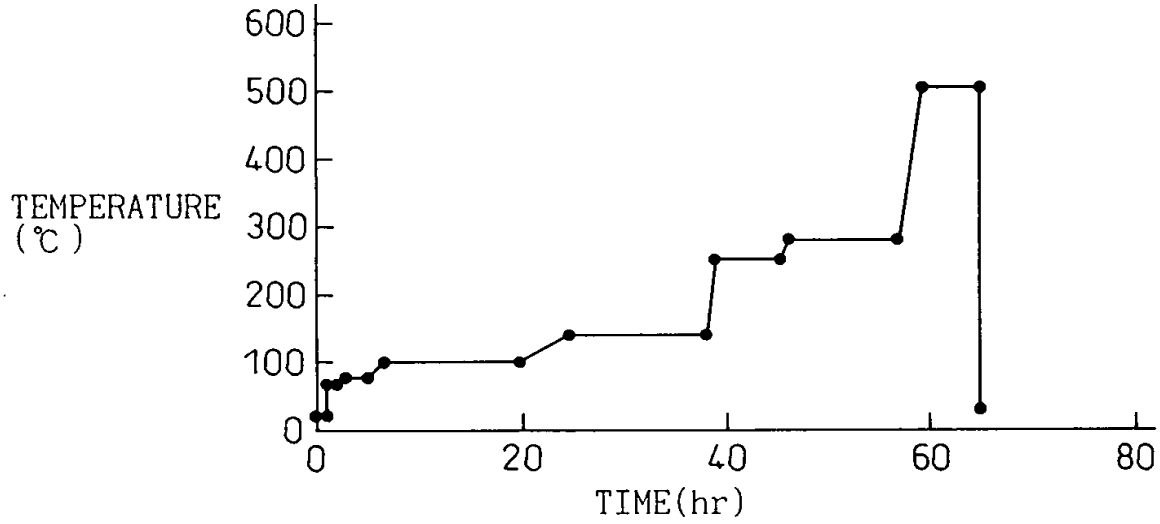

TEMPERATURE
(℃)
600
500
400
300
200
100
0
0
20
40
60
80
TIME(hr)

Fig.8

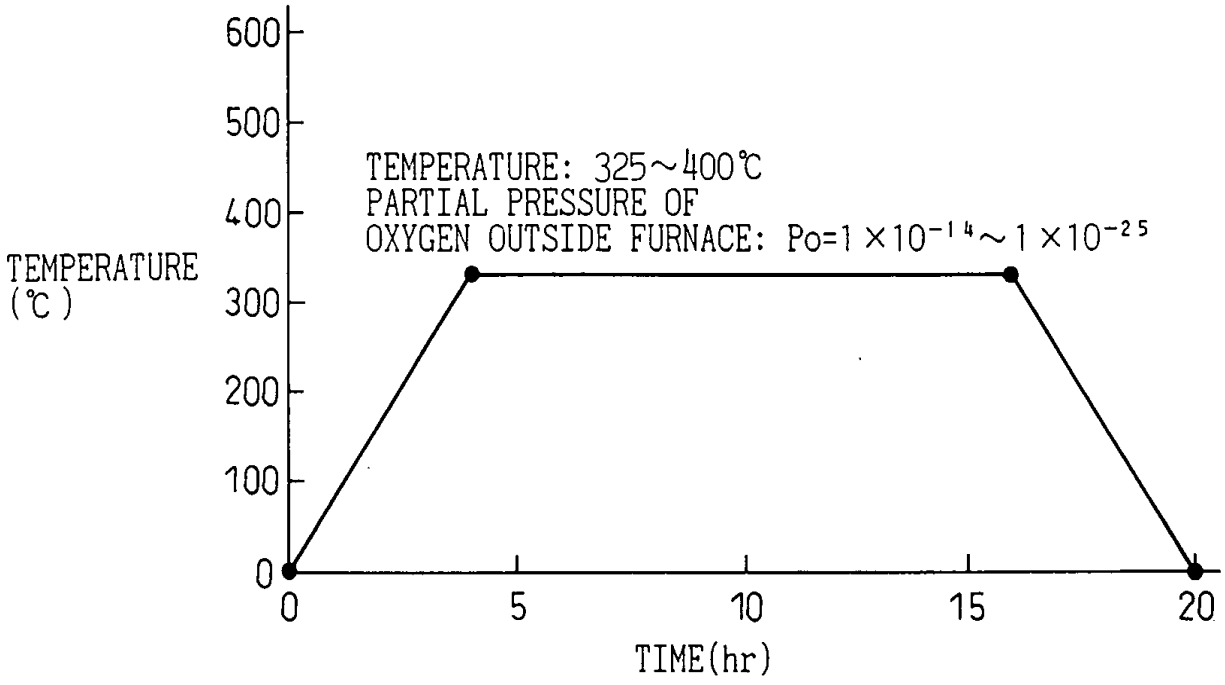

TEMPERATURE
(℃)
600
500
400
300
200
100
0
TEMPERATURE: 325~400℃
PARTIAL PRESSURE OF
OXYGEN OUTSIDE FURNACE: Po=1×10⁻¹⁴~1×10⁻²⁵
0
5
10
15
20
TIME(hr)

Fig.9(a)

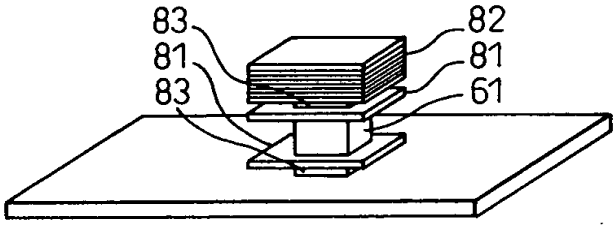


Fig.9(b)

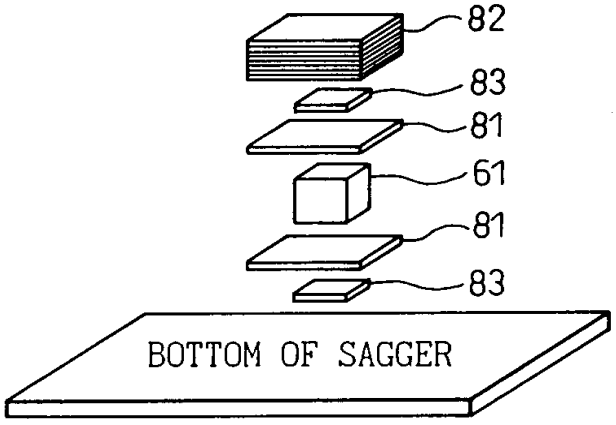


Fig.9(c)

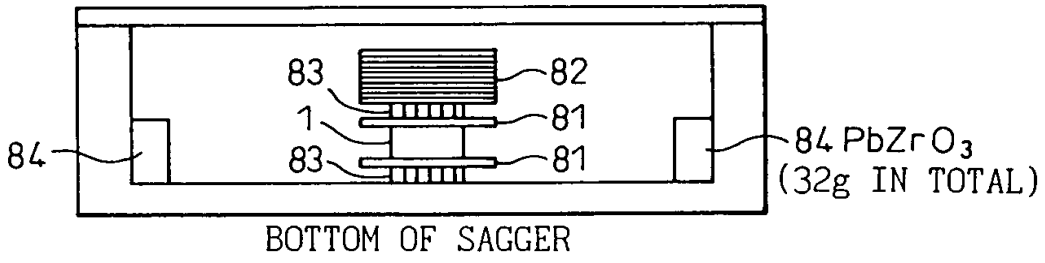


Fig.10

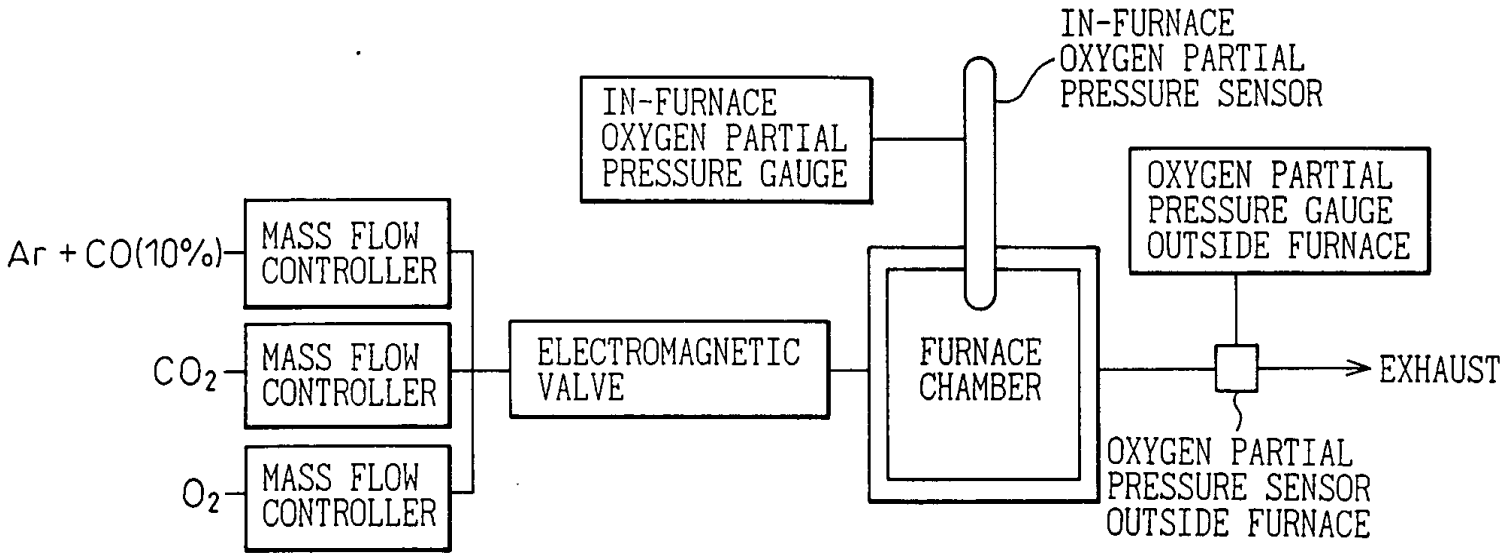

IN-FURNACE
OXYGEN PARTIAL
PRESSURE SENSOR
IN-FURNACE
OXYGEN PARTIAL
PRESSURE GAUGE
OXYGEN PARTIAL
PRESSURE GAUGE
OUTSIDE FURNACE
Ar + CO(10%)
MASS FLOW
CONTROLLER
CO_2
MASS FLOW
CONTROLLER
O_2
MASS FLOW
CONTROLLER
ELECTROMAGNETIC
VALVE
FURNACE
CHAMBER
EXHAUST
OXYGEN PARTIAL
PRESSURE SENSOR
OUTSIDE FURNACE

Fig.11(a)

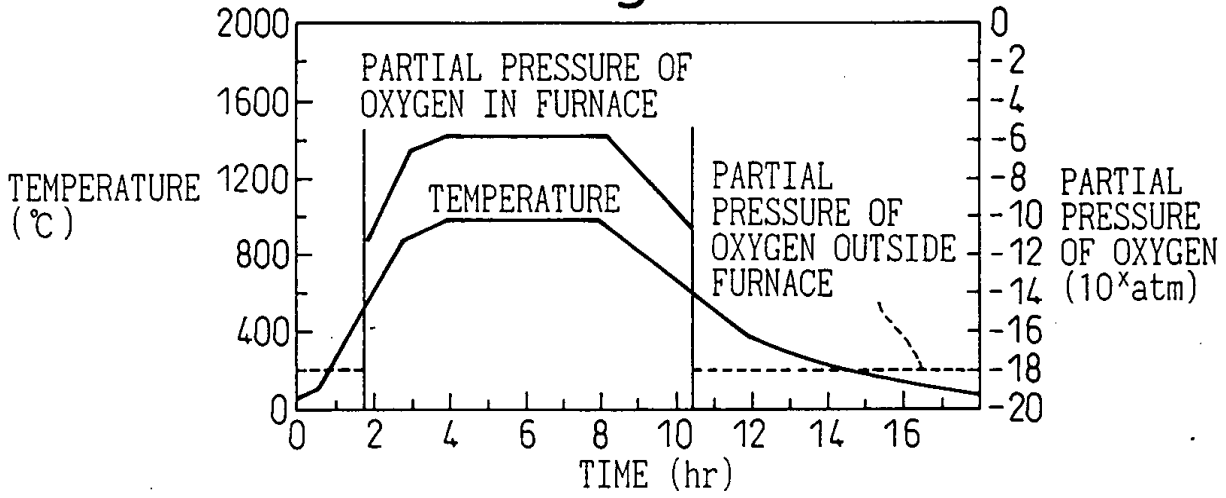


Fig.11(b)

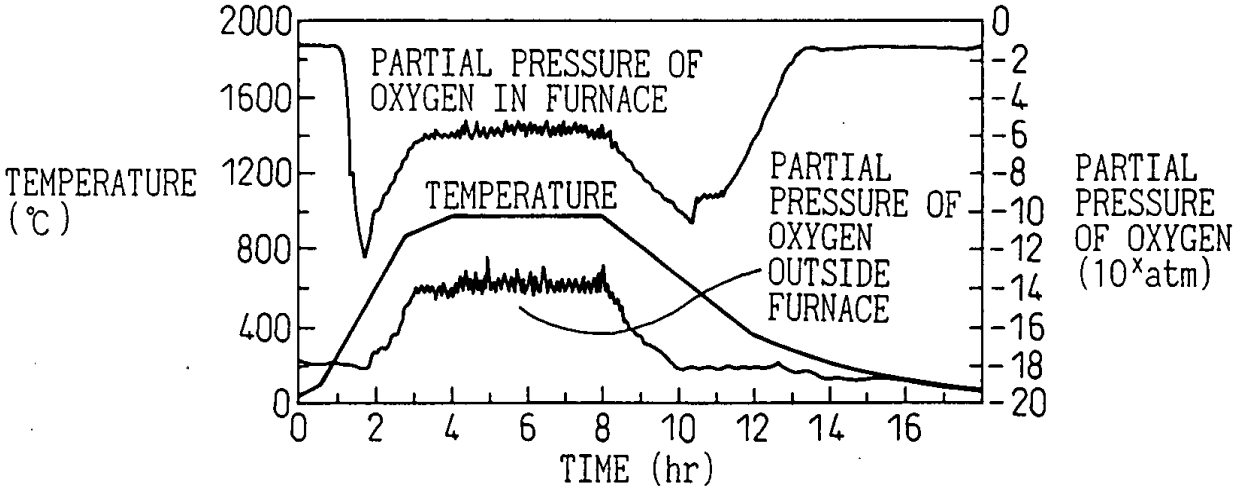
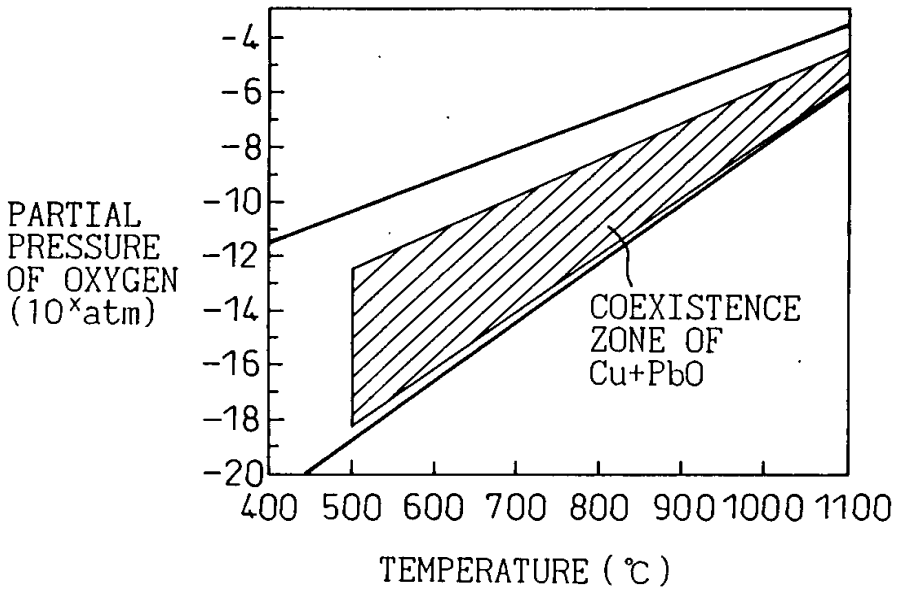


Fig.11(c)


PARTIAL
PRESSURE
OF OXYGEN
(10^x atm)
-4
-6
-8
-10
-12
-14
-16
-18
-20
400
500
600
700
800
900
1000
1100
TEMPERATURE (℃)
COEXISTENCE
ZONE OF
Cu+PbO